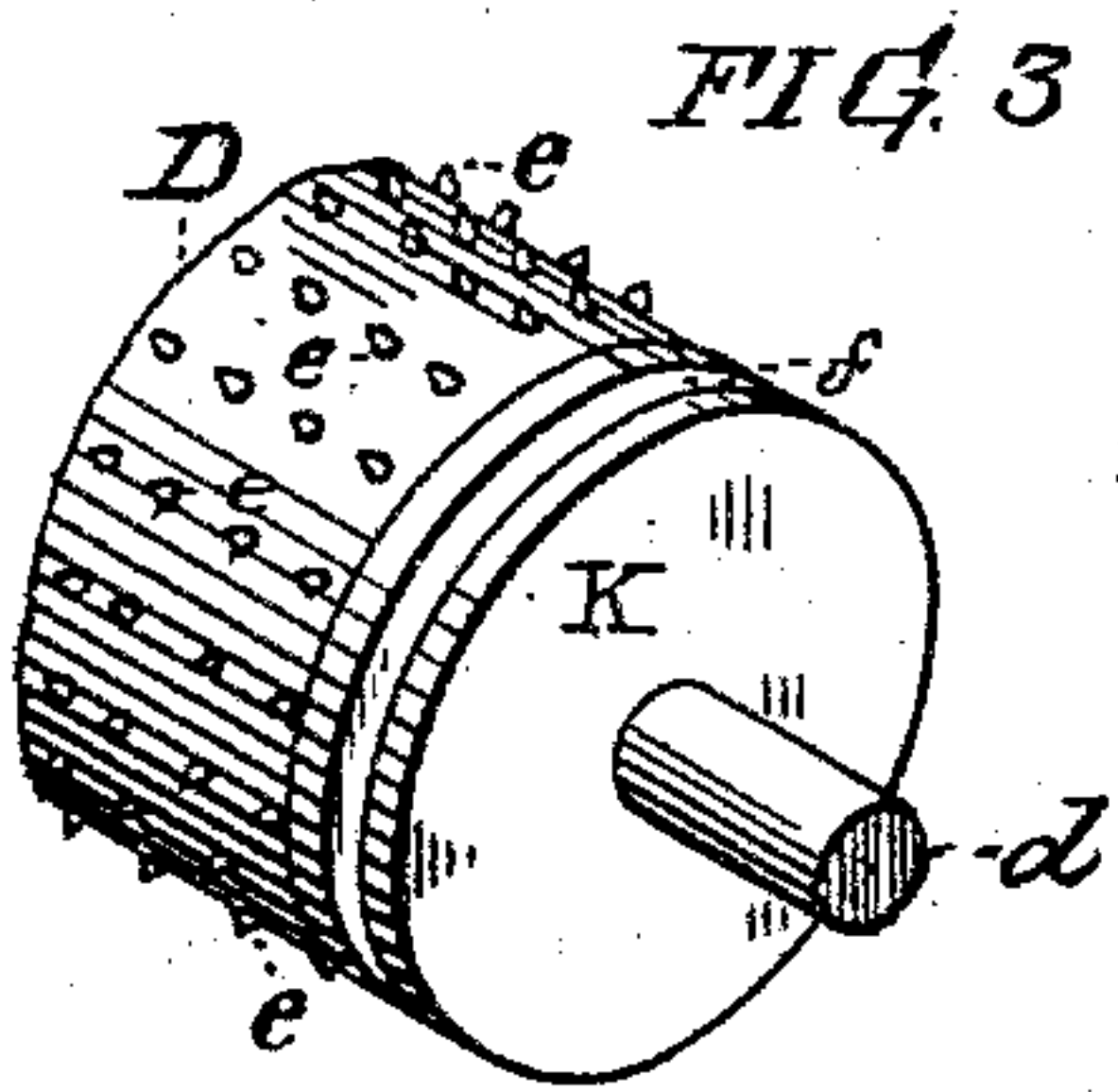
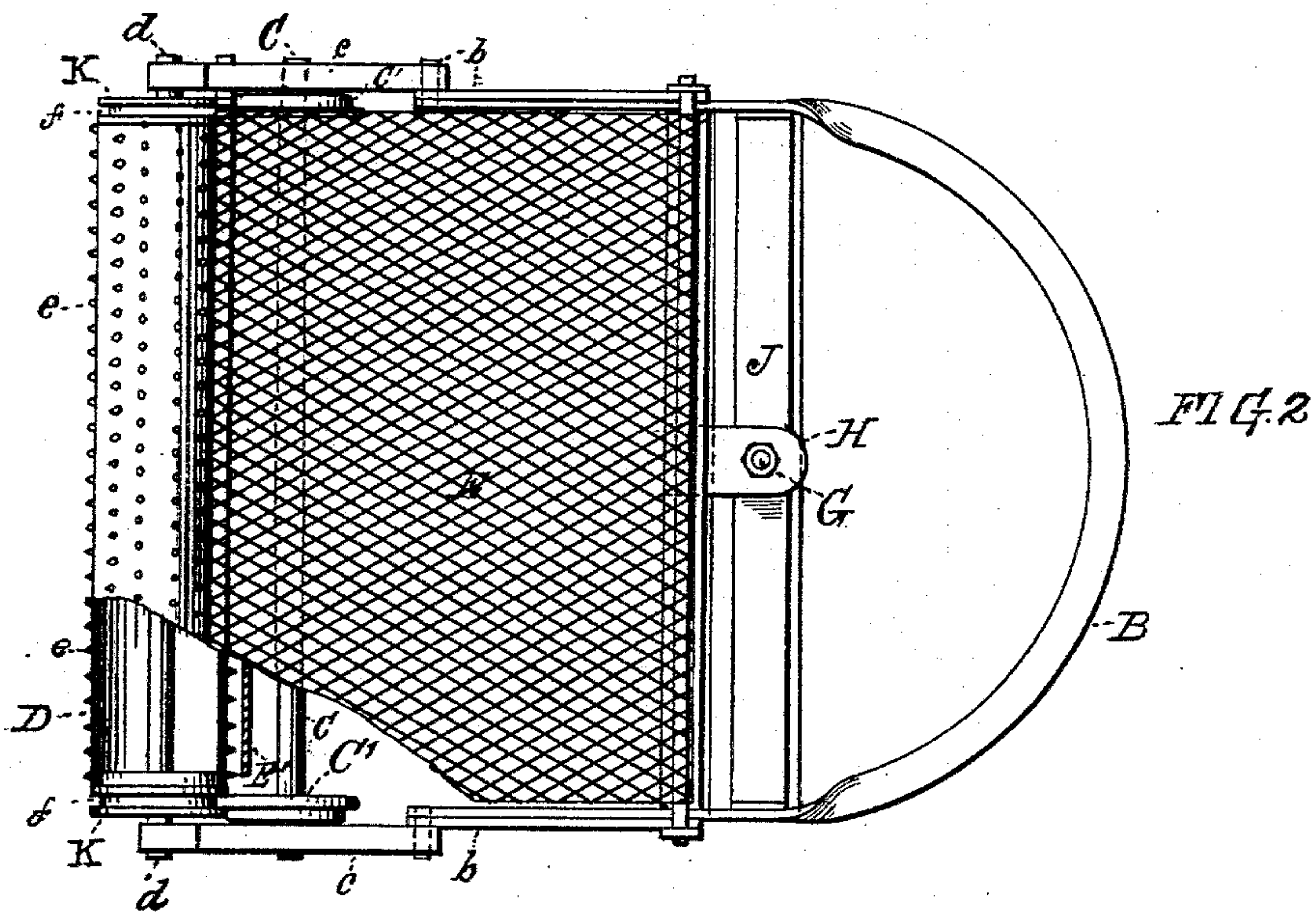
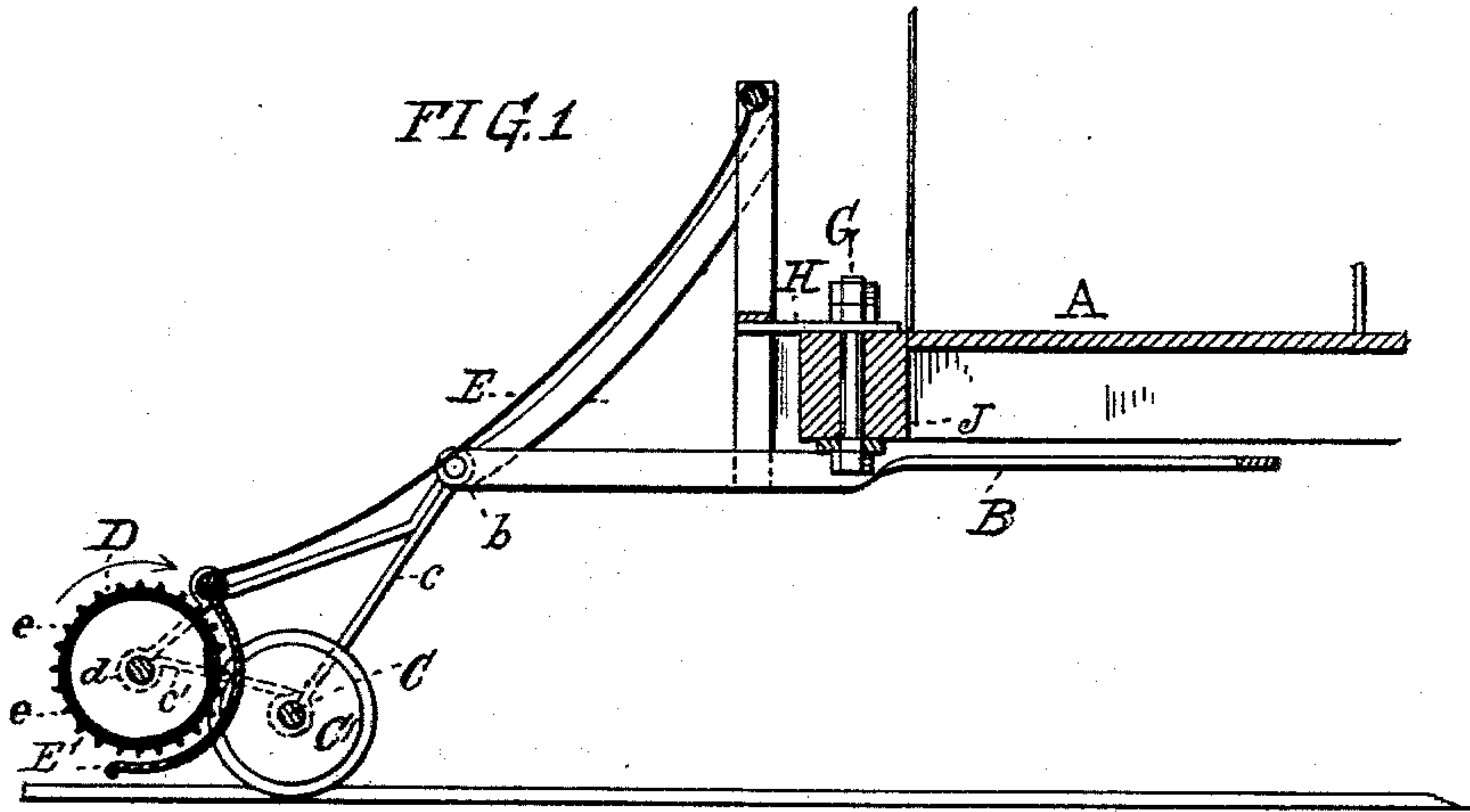


No Model.)

J. H. DOERR.
CAR FENDER.

No. 548,631.

Patented Oct. 29, 1895.



Witnesses:

M. E. Swaincott.

S. E. W. Bawley.

Inventor:

John Henry Doerr.

By Thomas J. Bewley, atty

UNITED STATES PATENT OFFICE.

JOHN HENRY DOERR, OF CAMDEN, NEW JERSEY, ASSIGNOR OF TWO-THIRDS
TO JACOB LODGE AND HANFORD C. SMITH, OF PHILADELPHIA, PENN-
SYLVANIA.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 548,631, dated October 29, 1895.

Application filed August 5, 1895. Serial No. 558,284. (No model.)

To all whom it may concern:

Be it known that I, JOHN HENRY DOERR, a citizen of the United States, and a resident of Camden, in the county of Camden and State
5 of New Jersey, have invented certain new and useful Improvements in Trolley-Car Fenders, of which the following is a specification.

The invention mainly consists of a pneumatic rubber roller extended laterally across
10 the forward end of the car-body between the rails of the road-bed, over and upon which the car is propelled in its forward movement, said roller being supported by journals at its extremities, which have bearing in a suitable
15 framework or housings for their support, which are projected outward longitudinally in front of the car-platform and wire fender, said fender and roller having pivotal connection
20 therewith. At each extremity of the roller and rigid thereon are wheels, whose peripheries are channeled in such a manner that they engage with the corresponding flanges of the car-wheels contiguous thereto, which in their
25 revolutions during the propulsive movement of the car cause the roller to revolve in conjunction therewith. This roller is provided with a series of projections arranged at equidistant points upon its periphery in such
30 manner as to engage with and carry over upon the fender any mass, portion of matter, or body resting upon the road-bed which would obstruct the forward movement of the car. The weight of said matter or body when carried over upon the wire network of which
35 the fender is composed causes it to lift the roller upward by reason of its pivotal connection in its bearings of the framework, thus removing the body of matter or other obstacle
40 upon the roadway out of the course of the passage of the car and from the consequent danger of injury. The entire framework and roller are connected by a bolt to the end cross-timber of the car-body to allow of a swivel
45 movement of the mechanism during the passage of the car across switches or in rounding curvatures of the track. The wire-network fender is also provided with a segmental curved portion extending downward in the
50 rear of the pneumatic roller, whose lower edge

is but slightly elevated above the surface of the roadway, which precludes the passage beneath the fender of any obstruction to the forward movement of the car, as will be more
fully understood from the following detailed
description and accompanying sheet of draw-
ings, in which—

Figure 1 is a side elevation of a portion of the platform of a car-body, showing the improvement in connection therewith. Fig. 2
60 is a plan view of the same. Fig. 3 is a perspective view of one end of the pneumatic roller D, showing one of the metallic pieces K, which is provided with the groove or channel
65 *f*.

Like letters of reference indicate the same parts.

A is the forward end of the platform of the car-body, to which the cross-brace timber is secured and forming an integral part there-
70 with.

B is a metallic bar, whose main portion is semicircular in contour, and whose parallel ends or arms *b b* are extended in the same plane, projecting from the sides of the plat-
75 form A, so as to form bearings to support the hangers or pedestals *c c'*, which support the car-axle C, and also the pneumatic roller D, by means of its journals *d d* revolving in bearings in said pedestal *c'*. This roller D is fur-
80 nished upon its cylindrical surface with a series of short spike-like knobs *e*, so arranged circumferentially thereon as to engage during its revolutions as the car is propelled
85 with any foreign body on the roadway and lift the same upward and upon the wire-network fender E out of the pathway of the car and from the danger of injury. At each end of this roller D and fast thereon are the metallic circular pieces K, each having an annu-
90 lar concentric groove *f* in their peripheries, into which the flanges of the car-wheels C' of the axle enter, and as the weight of the roller bears the pressure thereof downward and upon said flanges the roller is thus caused to
95 rotate during the movement of the car and carry any body or obstruction from the surface of the track.

The mechanism and attendant supporting portions have swivel connection with the 100

framework of the car by means of the bolt G, which passes through the spur H into the cross-brace timber J, forming a portion of the framing of the car-platform, by which means
5 the fender and parts attached may be given a swivel movement during the passage of the car over switches and around curvatures of the roadway. In the rear of and of equivalent curvature in its segmental area is the
10 downwardly-projecting portion E' of the fender forming part thereof, whose lower edge is but slightly elevated above the surface of the rail, and which acts as a guard that would prevent the passage beneath the car of any
15 body or mass of matter presenting an obstruction to the passage of the car or an injury to the operation of the roller or fender in removing the obstacle.

In some cases the fender may be connected
20 directly with the draw-bar of a car-coupling, thus dispensing with the link.

I claim as my invention and desire to secure by Letters Patent—

1. The pneumatic roller D, supported in the

bearings c', on the ends b, of the bar B, and 25 having its surface furnished with the conical, or pyramidal projections e said roller having the annular grooves f, in the pieces K, upon its ends, that bear against and revolve with the flange of the car wheel C', for the purpose 30 of rotating said roller, substantially in the manner and for the purpose herein shown and described.

2. The combination of the roller D, constructed as herein shown and described, having the annular grooves f in its ends in the 35 pieces K, and revolving with the flanges of the wheels C' with the fender E, provided with the segmental lower portion E', extending downward to a point near the surface of 40 the car rails, with the draw-bar of a railway car, substantially in the manner herein shown and described for the purpose set forth.

JOHN HENRY DOERR.

Witnesses:

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